Claims

1. Burner (9) oriented along an axis (10) with an annular premixing channel (21), into which fuel (13) can be introduced in a radially distributed manner,
characterized in that
the radial distribution of the fuel (13) can be adjusted during operation of the burner (9).

2. Burner (9) according to claim 1,
with which admission devices (31, 33) distributed over the periphery of the premixing channel (21) are provided for the radial admission of fuel (13) at the respective peripheral position by means of admission holes (29) disposed in the radial direction with a respective hole cross-section, with the hole cross-sections of a first set (31) of admission devices increasing toward the axis (10) and the hole cross-sections of a second set (33) of admission devices decreasing.

3. Burner (9) according to claim 2,
with which the admission holes of the first set (31) and second set (33) are disposed in an alternating manner along the periphery of the premixing channel (21).

4. Burner (9) according to claim 2,
with which the admission devices of the first set (31) and second set (33) follow each other in succession in the axial direction of the premixing channel (21).

5. Burner (9) according to one of the preceding claims,
with a first (43) and a second (45) fuel supply line running around the axis (10), with a pressure difference between the fuel pressures in the two fuel supply lines (43, 45) being

adjustable in respect of each other as a function of the operating state of the burner (9).

6. Burner (9) according to claim 5 and one of claims 2 to 4, with which the first set (31) of admission devices is connected to the first fuel supply line (43) and the second set (33) of admission devices is connected to the second fuel supply line (45).

7. Burner (9) according to one of claims 2 to 6, with which the admission devices (31, 33) are small tubes projecting radially into the premixing channel (21), to the inside of which the fuel (13) is supplied.

8. Burner (9) according to one of claims 2 to 6, with which the admission devices (31, 33) are helical blades projecting radially into the premixing channel (21), to the inside of which the fuel (13) is supplied.

9. Burner (9) according to claim 4, with which the first set (31) of admission devices is made up of small tubes projecting radially into the premixing channel (21) and the second set (33) of admission devices is made up of helical blades (26) projecting radially into the premixing channel (21).

10. Burner (9) according to one of the preceding claims, configured as a gas turbine burner, in particular for a stationary gas turbine (1) with an output greater than 50 MW.

11. Burner (9) according to one of the preceding claims, with a central diffusion burner (23) enclosed by the premixing channel (21).

12. Method for operating a gas turbine (1) with a burner (9) for burning a fuel (13) in air (11), said burner (9) having an annular premixing channel (21), into which the fuel (13) is introduced in a radially distributed manner, characterized in that the radial distribution is adjusted as a function of an operating state of the gas turbine (1).

13. Method according to claim 10, with which during partial-load operation of the gas turbine (1) the radial distribution is adjusted such that a range of a local maximum is established in the radial distribution of the concentration of fuel in the fuel/air mixture (28).

14. Method according to claim 10, with which during full-load operation of the gas turbine (1) the radial distribution is adjusted such that a homogenous concentration of the mixture of fuel (13) and air (11) results.

15. Method according to one of claims 12 to 14, with which, if a combustion oscillation occurs with an amplitude that exceeds a predefined limit value, the radial distribution is modified.